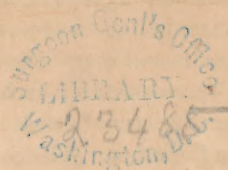


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## PHYSIOLOGY OF THE BLOOD.

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To enable us to comprehend the function of the blood, which the text signifies, it is incumbent to define not only the action, but the body or substance which acts in elaborating the work.

If we take the largest range of bodies between which a circulation is maintained, we shall have entered the domain of astronomical territories, in which ethereal circulation is the limit of the blood space of worlds, in which resides all the possibilities of form and function of planetary existence and subsistence.

Thus we are able to perceive that we must first define the blood belonging to the body, to which it acts as servant, and out of which the body takes its origin; in order to understand that blood, and every body and substance, is but the limit or degree of differentiation between most indifferenced spirit and most differenced crystal or absolute solid; attempts of each at domination of which produce, in equation of governance, all possibility of substance and form, from seraph to silex, with all intermediates.

Blood, then, in the most general sense, signifies chaos, or formless substance, out of which individual being is produced, and by which it is sustained and empowered to work out the mission of its metamorphoses from inception, efflorescence, and fruitage, to decadence and disruption into its individual constituencies, solid, fluid, gaseous, ethereal, and spiritual.

In fact, the true physiology of the blood is just this round of change between most condensed and most diffused condition of substance, pronounced in the enamel of the teeth and the mucous mass, or amorphous germinal matter, in the juices of the flesh, in all forms of animals, from the simplest lump of jelly (sea-nettle), to radiate, mollusk, and mammal.

The function of the blood of Planets, Plants, and Peoples, is nothing

less than a ceaseless series of formation and appearance, metamorphosis and disappearance of substance, as blood, to become every possibility of filament and fibre, tissue and organ, soft and solid, conceived or conceivable by the mind of man, in due co-ordination of electrism, chemism, and magnetism, in every scale and every degree of manifestation of matter and mind, the correlative necessities inhering in substance.

The relations of mind and matter are such that we can only apprehend the one by comprehending the other. The commerce carried on between them is transacted through the medium of the blood, be it colorless, white, red, or black. The purely transparent, ethereal, colorless variety belonging to the planets or heavenly bodies, as parts of the macrocosm or infinite world, whose parts they respectively are, the black to creatures capable of subsisting in the dark, mineral, vegetable, or animal (inhabitants of planets); the intermediates between these extremes, viz., white, red, blue, etc., belonging to crystals of plants and minerals, in which water-, earth-, fire-, and air-processes conspire to produce intimate commingling of what have been called *elements*, capable of thus influencing the light pencil, by which the qualities of appearance become possible of cognition by us. Thus the *blood* of the infinite system of worlds becomes the *breath* of the individual worlds or globes (planets). This is the first metamorphosis of *blood* to *breath* that comes within the range of our present ability of comprehension.

The next step is the antithesis of this, in which the process is reversed, and the *breath* is converted into *blood* proper to the individual system of present or prospective organs, the consentaneous action of which constitutes it an individual system in harmonious equation of all the possible modes of life and motion, belonging to the macrocosm or to the microcosm, which each successive subdivision of the former is to all above it, and which (macrocosm) it becomes to all below it in the great scale of being, in which breath and blood are interdependent necessities of pronouncement. *Levity* and *gravity* are only predicable of microcosms, which are endowed with definite centres and surfaces. *Angularity* of outline is only possible to bodies occupying fractional dominion or occupancy of space. *Expansion* tends to levity; contraction, to gravity.

The tendency to predominance of neural blood is conducive to elevation of mind and body; that of the vascular blood, to stolidity of mind and immobility of body. So the exact equation in alternations of the struggle to dominate keeps up the continuous round of circulation by inspiration, digestion, and expiration in every cell, tissue, organ, and system, by the antagonisms of each being fused into equable health of the whole mind and body. Does any one say, "This being so, pure blood would produce pure life, and this must annihilate death and make life perpetual?" My reply is, The conception is in itself not only the *prophecy*, but the *proof*, that it is possible, and will certainly come to pass just when the condi-



tions of an absolutely pure and perpetual obedience to the laws indicated shall have been attained.

Affete and effete conditions correspond to and indicate oxidation and carbonization of the blood column. Oxidation producing and intensifying vivific currents of normal affinities; carbonization deflecting, reducing, and, if continued, extinguishing them. Carbon is poured out by the skin, lungs, liver, and kidneys; nitrogen, normally through the kidneys, and sometimes the skin, in the form of oxides; but by all the emunctories, vicariously, when under the stress of pathological states.

In fact, it is this very failure of normal function of any and all the bloods that constitutes disease—pathological condition! Whenever foreign bodies form in, or get into, the bloods of nutrition, secretion, or excretion (in other words, the extravascular, neural, or vascular bloods), to saturation, they produce stasis, and form centres around which accretions gather of like or unlike free elements; poisoning the blood stream by re-solutions of the foreign products, or causing deposits (which become phlegmon, tubercle, cancer, or other soft abnormality, or calculus, or lithic body), as directly, on the downward scale of togetherness, as do the pure blood streams produce every variety of tissue and organ when on the ascending scale of life endowment and organic movement.

That breathing is the type of all motion or function of body is susceptible of the clearest demonstration, whether it be in formation, development, or multiplication. If we wish artificially to produce *tubes*, the typical form of vessel, all we have to do is to add water to a dry amorphous mass of myeline, and we shall see slender tubes shoot from the free margins of the mass in all directions, after the manner of crystallization, proving the identity of *vital* and so-called *chemical* motion.

To produce at will the typical biconcave cell or disk, said to be the specific product of germinal evolution, blood corpuscle, it is only necessary to add serum to the thin-spread attenuated sheet of this same myeline to see these bodies spring up in the field of vision with a spontaneity startling to unbelievers. To be sure they are in general of larger size than the blood disks, but of the exact typical form and appearance.

To enter into all the mutations of these bodies arising in simple myeline and water, myeline and serum, and this same and white of egg, and other viscid substances, in which it produces, under these various enabling circumstances, filaments so very like nerve-tubes as to be undistinguishable from them, also simple cells, nucleated cells, nucleolated cells, cells within cells like pus-cells, and the biconcave cells referred to above, would involve the expenditure of more time, money, brains, and patience, than most of us have at command at this present.

The blood of any body is the life thereof, and holds within its grasp all possibility of function resultant upon every variety and degree of differentiation of organ by which function is elaborated in the interest of the system to which it belongs.

Blood function is evanescent and changeful—much like electric currents, now positive, now negative to the charge already in the bodies upon whose surfaces it makes its devious way. The function of blood is to act as food, poison, or medicine, according to the state of the localities through which it passes. In fact, simple heterotypia, error of place of blandest blood, will constitute a poison to the locality in which it is out of normal place. The excrementitious bloods (urine, bile, etc.) are poisonous when out of their proper receptacles and tracts in the body.

The *cause* of all *action* (motion) is *spirit*. Bodies acted upon are bloods, or products of bloods saturated with spirit, and formed into organs and systems. Spirit is substance or Presence, whose differentiated fractionalization or debris is matter, whose range is extended throughout ethers, gases, vapors, liquids, colloids (soft solids), and solids.

Blood organization is nothing less than due solution and amorphous elemental admixture of matter, out of which to construct bodies upon the plan or type of parents, or original spontaneity. Contagions and infections are blood poisons, capable of destroying the life of the whole body into which they enter, or modifying it in various extents and degrees. They are also capable of antidoting other blood poisons already in the system, and thus acting as medicines. The medium of contagion may be fluid or solid, but that of infection must be gaseous or aeriform; though some viruses are capable of assuming both forms, the variolous virus for instance.

A full discussion then of blood, it is now apparent, involves the whole range of biological movement in normal or abnormal manifestation, evidently including the phases of pronouncement of mind and matter as segregate sequents in substance of FORCE!